

CLAIMS

WE CLAIM:

1. A peptide having an amino acid sequence selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

2. A composition comprising one or more peptides of claim 1 and a carrier.

3. The peptide of claim 1 having the amino acid sequence:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1).

4. A composition comprising the peptide of claim 3 and a carrier.

5. The peptide of claim 1 having the amino acid sequence:

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2).

6. A composition comprising the peptide of claim 5 and a carrier.

7. The peptide of claim 1 having the amino acid sequence:

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

8. A composition comprising the peptide of claim 7 and a carrier.

9. The peptide of claim 1 wherein said peptide has antimicrobial activity.
10. The peptide of claim 1 wherein said peptide has antimicrobial activity in low salt.
11. The peptide of claim 1 wherein said peptide has antimicrobial activity in physiologic salt
12. A solid phase substrate comprising at least one peptide selected from the group consisting of:
RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);
RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and
RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
13. The solid phase of claim 12 wherein the peptide is
RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1).
14. The solid phase substrate of claim 12 wherein the peptide is
RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2).
15. The solid phase substrate of claim 12 wherein the peptide is
RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
16. The solid phase substrate of claim 12 wherein said solid phase is a prosthetic device.

17. The solid phase substrate of claim 16 wherein said prosthetic device is a prosthetic joint.

18. The peptide of claim 1 wherein said peptide comprises at least one cysteine residue.

19. The peptide of claim 18 wherein said peptide is a disulfide linked dimeric peptide.

20. A peptide-cargo complex comprising a cargo and a peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

21. The peptide-cargo complex of claim 20 wherein said peptide has antimicrobial activity and said cargo increases the antimicrobial activity of said peptide.

22. A method for inhibiting microbial growth comprising administering an effective amount of at least one peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

23. The method of claim 23 wherein said peptide inhibits microbial growth in *in vitro* cell cultures.

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25. A method for inhibiting microbial growth in a subject comprising administering to the subject an effective amount of at least one peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

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26. The method of claim 25 wherein said peptide is administered topically, enterally or parenterally.

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27. The method of claim 23 or 25 wherein said peptide is attached to a solid phase substrate.

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28. The method of claim 23 or 25 wherein said microbial growth is resistant to antibiotics.

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